Stepped

Connects points with horizontal and vertical lines only. Click **Properties** to further specify the formatting of the lines (Figure 139). The options are self-explanatory.
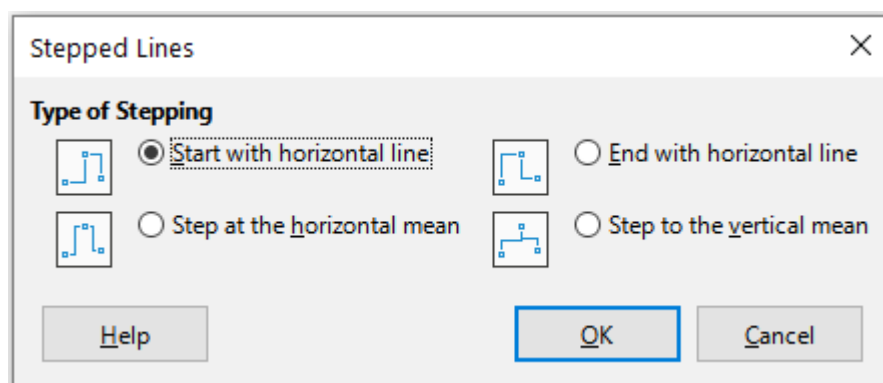

Figure 139: Stepped Lines dialog

Things to do with lines: thicken them, smooth the contours, just use points, or make them 3D. However, 3D lines can confuse the viewer, so just using a thicker line often works better. Figure 140 shows some examples of line charts.
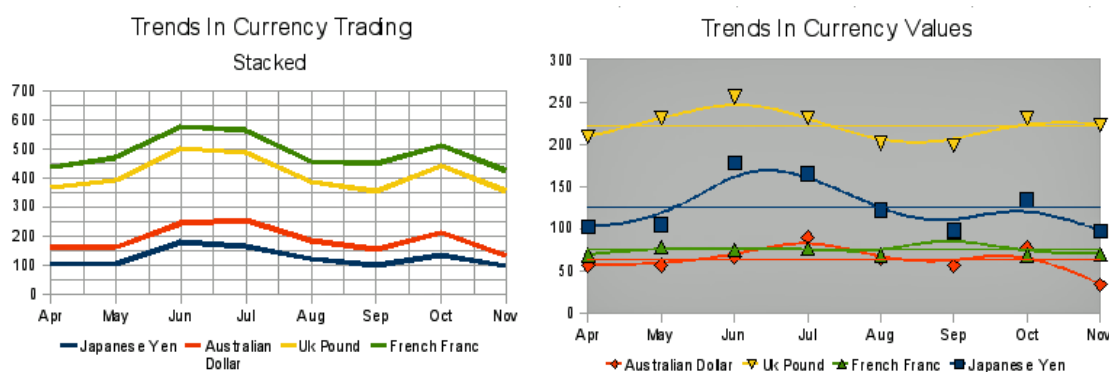

Figure 140: Line chart examples

Scatter or XY charts

In contrast to line, column, and bar charts, which contain numeric values on the Y axis and categories on the X axis, scatter or XY charts contain values along both axes. They are quite useful, especially for understanding relationships among data that are precise and complex. An XY chart may contain more than one data series and can perform many tasks, such as generating a parameter curve or drawing the graph of a function.

> 🛈 **Tip**
>
> When plotting time on the X axis, make sure that it is not text and is written in the correct format for your locale. For example, instead of January, use a format such as 1/1/2022. Check locale formats at **Tools > Options> Language Settings > Languages > Date acceptance patterns**.

XY charts are most frequently used to explore the statistical associations among quantitative variables. There is often a constant value against which to compare the data — for example, weather data, reactions under different acidity levels, or conditions at various altitudes.